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**From:** Ann Maest [Ann Maest <AMaest@stratusconsulting.com>]  
**Sent:** 8/28/2012 3:16:36 PM  
**To:** Robert R Seal [rseal@usgs.gov]  
**CC:** Jeff Frithsen/DC/USEPA/US@EPA; Palmer Hough/DC/USEPA/US@EPA; Kate Schofield/DC/USEPA/US@EPA; Glenn Suter/CI/USEPA/US@EPA; almer Hough/DC/USEPA/US@EPA; Kate Schofield/DC/USEPA/US@EPA; Glenn Suter/CI/USEPA/US@EPA; ate Schofield/DC/USEPA/US@EPA; Glenn Suter/CI/USEPA/US@EPA; lenn Suter/CI/USEPA/US@EPA  
**Subject:** RE: Supporting Information from Appendix H  
**Attachments:** rseal@usgs.gov; AMaest@stratusconsulting.com; Hough.Palmer@epamail.epa.gov; rseal@usgs.gov; Frithsen.Jeff@epamail.epa.gov; Schofield.Kate@epamail.epa.gov; suter.glenn@epamail.epa.gov; mailto:Hough.Palmer@epamail.epa.gov; www.epa.gov/wetlands

Hi Bob –

Thanks for the spreadsheet – it's a big help. I'll look through today and will let you know if I have any other questions.

Best,

Ann

Ann Maest, PhD

Managing Scientist

Stratus Consulting, Inc.

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303-381-8000 x268

From: Robert R Seal [mailto:rseal@usgs.gov]  
Sent: Tuesday, August 28, 2012 8:45 AM  
To: Ann Maest  
Cc: Jeff Frithsen; Palmer Hough; Kate Schofield; Glenn Suter  
Subject: RE: Supporting Information from Appendix H

Hi Ann,

Attached is the spreadsheet of data that I pulled from the EBD. It includes more than you asked for, but it is the sum of what I extracted from the EBD. I have previously shared the spreadsheet with Glenn Suter and others.

I did look at recoveries from the humidity cell tests. Because I was looking at average release rates, I pulled recoveries from a number of their experiments (but not all) and ended up with an average recovery of 2400 mL out of 2500 mL of input, or 96 %. I applied this uniformly to all of the average release rates. I admit that this was a simplifying assumption, but there was no way that I would have been able to work through the more rigorous alternative given the time available.

I hope this helps. Let me know if you have any more questions. I am usually in the office M-Th and work from home on F. I check email regularly regardless of where I am.

Bob

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Robert R (Bob) Seal, II  
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From:

Ann Maest <AMaest@stratusconsulting.com>

To:

Palmer Hough <Hough.Palmer@epamail.epa.gov>, Robert R Seal <rseal@usgs.gov>

Cc:

Jeff Frithsen <Frithsen.Jeff@epamail.epa.gov>, Kate Schofield <Schofield.Kate@epamail.epa.gov>, Glenn Suter <suter.glenn@epamail.epa.gov>

Date:

08/27/2012 08:12 PM

Subject:

RE: Supporting Information from Appendix H

Hi Bob –

As Palmer noted, we are working on an integrated groundwater-surface water-climate model (using MIKE SHE), and one of the things we're trying to simulate is the potential effects of the transport of leachate from the waste rock piles (under the 25-yr mine scenario) to nearby streams under a failure scenario. I am specifically looking for the inputs you used to calculate the mean and standard deviation values for Table 4 in Appendix H of the BBWA. I see the references to the tables in PLP's EBD and am wondering if you have a spreadsheet you could share. We can pull in the data from these EBD tables, but I'm less certain what you used for the volume of leachate recovered (some of the volumes were quite different than the starting volume of 2500 mL). I assume you used 5 kg for the sample mass. We are thinking of grouping according to rock type and need to check all inputs. Any tips are much

appreciated.

Thanks,  
Ann

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From: Palmer Hough [mailto:Hough.Palmer@epamail.epa.gov]  
Sent: Monday, August 27, 2012 2:17 PM  
To: Robert R Seal  
Cc: Ann Maest; Jeff Frithsen; Kate Schofield; Glenn Suter  
Subject: Supporting Information from Appendix H

Bob:

I hope you are well. An outside group led by Ann Maest has been working on a hydrology model to evaluate water quantity and quality related issues associated with our mine scenario. Ann indicated that it would be helpful for her model efforts if she had access to some of the information that you relied on in Appendix H.

I've cc'ed Ann on this message so that she can reach out to you directly with her request.

Thanks in advance for assisting her.

-Palmer

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